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Traffic Safety  
Administration

✓  
MOTIVATION OF RESTRAINT SYSTEM USAGE AMONG  
SPECIFIC TARGET GROUPS OF DRIVERS AND PASSENGERS

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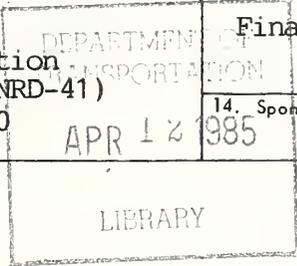
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15. Supplementary Notes			
<p>16. Abstract</p> <p>A series of motivational materials were developed for use with four specific target groups:</p> <ol style="list-style-type: none"> <li>1) Parents of children under age 5</li> <li>2) Predrivers, ages 12 to 16</li> <li>3) Teenage drivers and passengers, ages 16 to 19</li> <li>4) High risk transitional male drivers, ages 19 to 24</li> </ol> <p>Both print and oral materials were developed for use with these target groups. Some materials are applicable to more than one group, and many may be used in combination. The materials included the following:</p> <ol style="list-style-type: none"> <li>1) Prenatal/Parenting Class Presentation</li> <li>2) Pamphlet for parents, "If You Love Me"</li> <li>3) Pamphlet for Parents from physicians, "Your Physician Cares"</li> <li>4) "Talking Points" for health care professionals</li> <li>5) Predriver discussion presentation</li> <li>6) Skits for teens</li> <li>7) Pamphlet, "On or Off the Field" for predrivers, teens, and high risk drivers</li> <li>8) Mailing insert, "Let's Get It On" for teens and high risk drivers</li> <li>9) "Teen Talk" presentation for teenagers</li> <li>10) Talk Show for all groups with primary emphasis for high risk drivers.</li> </ol> <p>Concepts based on a previous study were utilized in creating effective messages and approaches identified as applicable for each target group. These materials may be used within networks for each target group.</p>			
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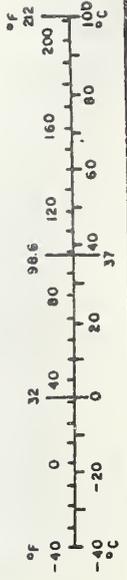
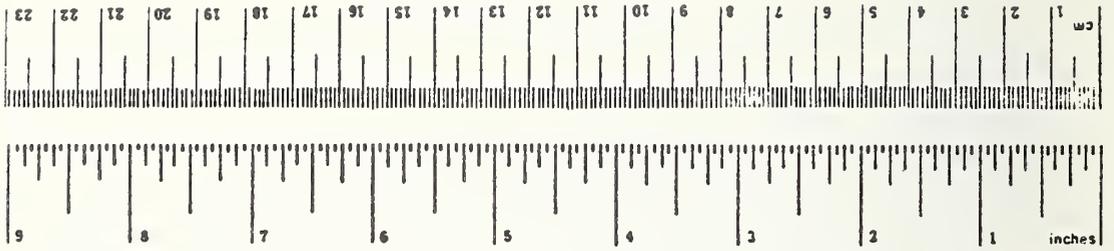
# METRIC CONVERSION FACTORS

## Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
<b>LENGTH</b>				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
<b>AREA</b>				
in <sup>2</sup>	square inches	6.5	square centimeters	cm <sup>2</sup>
ft <sup>2</sup>	square feet	0.09	square meters	m <sup>2</sup>
yd <sup>2</sup>	square yards	0.8	square meters	m <sup>2</sup>
mi <sup>2</sup>	square miles	2.6	square kilometers	km <sup>2</sup>
	acres	0.4	hectares	ha
<b>MASS (weight)</b>				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
<b>VOLUME</b>				
Tbsp	tablespoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft <sup>3</sup>	cubic feet	0.03	cubic meters	m <sup>3</sup>
yd <sup>3</sup>	cubic yards	0.76	cubic meters	m <sup>3</sup>
<b>TEMPERATURE (exact)</b>				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

## Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
<b>LENGTH</b>				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
<b>AREA</b>				
cm <sup>2</sup>	square centimeters	0.16	square inches	in <sup>2</sup>
m <sup>2</sup>	square meters	1.2	square yards	yd <sup>2</sup>
km <sup>2</sup>	square kilometers	0.4	square miles	mi <sup>2</sup>
ha	hectares (10,000 m <sup>2</sup> )	2.5	acres	
<b>MASS (weight)</b>				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
<b>VOLUME</b>				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m <sup>3</sup>	cubic meters	36	cubic feet	ft <sup>3</sup>
m <sup>3</sup>	cubic meters	1.3	cubic yards	yd <sup>3</sup>
<b>TEMPERATURE (exact)</b>				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



\* U.S. Customary Units. For other exact conversions and more detailed tables, see NBS Mon. Publ. 286, Units of Weight and Measure, Rev. 57, 25, 50 Catalog No. C-13 10-78b.

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## SUMMARY AND RECOMMENDATIONS

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Ebon Research Systems developed a series of materials for the National Highway Traffic Safety Administration which are designed to motivate specific target groups for safety belt usage and the use of child safety restraints. Four target groups were selected for material development. Those groups included the following:

- Parents of Children Under Age 5
- Predrivers, ages 12 to 16
- Teenage Drivers and Passengers, ages 16 to 19; and
- High Risk Transitional Drivers, ages 19 to 24.

Several stages were evident in the development of the materials for testing and evaluation. In the preliminary assessment phase, the goals of NHTSA programs were further clarified and critical messages and approaches identified in the previous study by Tarrance Associates were delineated. An extensive search of existing materials was conducted and a three-stage evaluation of these materials for potential use by NHTSA was conducted. Of almost eighty pieces of print material which were examined for possible application, none had any direct application to the target groups and all new materials were developed.

During the development phase, materials were designed using a set of criteria for form, message concepts, interest and motivational ability. These draft materials went through several stages of review prior to being placed in an appropriate format for evaluation.

Evaluation of materials was conducted with small groups drawn from each of the target groups, and consisted of assessment of knowledge, attitudes, and behavior on a pre- and post-material exposure basis. Instruments were designed to assess these critical factors and provide a formal evaluation methodology. Structured discussions were held as a part of the evaluative process to elicit other responses, primarily focusing on attitudes and impressions. Revisions, where appropriate, were made and a follow-up evaluation was conducted for the modified material.

Materials developed represented a creative melding of research concepts, teaching and motivational strategies, and human behavior understanding. This integration has provided a series of materials which may "stand-alone" or be used in conjunction with other materials in developing programs for use with these groups. Each of the materials are described below for each of the four target groups. Some of the materials are suitable for use with more than one target group, thus increasing the cost efficiency of use of the materials. Copies of the materials may be found in the section following these descriptions, beginning on page six.

Print Materials

Pamphlet: "If You Love Me, Don't Hold Me" provides interesting, informative material on why child safety seats should be used, tips for use, and types of seats

Pamphlet: "Your Physician Cares" for health care providers describes reasons why child safety seat use is an important part of health care and provides information on seats themselves

Handout: "Shopping Guide for Child Safety Seats" gives purchase location and pricing information for Washington, D.C. metropolitan area stores

Oral Presentation

"Prenatal/Parenting Class Presentation" discusses auto safety as it relates to child health. Provides information on reasons for use of child safety seats, types of child safety seats, and also encourages use of adult safety belts for parents

"Talking Points for Health Care Professionals" provides outlined information for use by health care professionals on child safety seat importance and the need for use of safety belts

Recommended Uses: The "Prenatal/Parenting Class Presentation" can be used either directly as provided, or serve as a presentation outline and discussion guide. It can be used for prenatal birth preparation or new parents classes or with some modification of the introduction, with any type of parenting class or group. The "If You Love Me" pamphlet and the "Shopping Guide" should be used in conjunction with this presentation.

"If You Love Me" can also be distributed to hospitals, clinics, pediatricians or other medical offices where it should be placed on display and available for parents. The "Your Physician Cares" pamphlet, while not as appealing to parents, may be the material of choice for some physicians. "Talking Points" can be distributed to a wide variety of health care professionals who have contact with new parents and would serve as a guide for motivating parents to obtain and use child safety seats.

PREDRIVERS, AGES 12 TO 16

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Print Materials

Pamphlet: "On or Off the Field" equates safety belt use with health and safety and use of belts as a part of personal caring. Common myths concerning safety belts are refuted and inertia reel belt systems are discussed.

Oral Presentation

"Predrivers Discussion Presentation" provides an interactive format instructive presentation designed to motivate 12 to 16 year olds to wear safety belts, to get others to wear them, and how belt use is a part of staying healthy. Inertial reel systems are discussed, and activity suggestions are offered.

"Skits for Teens" are two separate skits in contemporary format for use in conjunction with discussion and presentations.

Recommended Uses: The pamphlet "On or Off the Field" should be used only in conjunction with other presentations based on comments from predrivers that they like print material but are not motivated to pick it up on their own. They will, however, read it with interest if it is directly given to them as part of other activities.

The "Discussion Presentation" can be used "as is" or can be used as a presentation/discussion outline. It can be combined with the "Skits for Teens", suggested activities, print materials (above), and background materials such as the NHTSA Factbook for use in classrooms, Scouting, 4-H, or other internal groups, clubs, or activities. It is suggested that a short film of crash tests of belted and unbelted dummies be shown with the presentation.

TEENAGE DRIVERS AND PASSENGERS, AGES 16 TO 19

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Print Materials

Pamphlet: "On or Off the Field" equates safety belt use with health and safety and use of belts as a part of personal caring. Common myths concerning safety belts are refuted and inertial reel belt systems are discussed.

Mailing Insert: "Let's Get It On" provides a two-liner "caring" safety belt motivational message

Oral Presentation

"Teen Talk" interactive safety belt presentation stressing health and safety, use of belts as demonstrating concern for others, inertia locking belts.

"Skits for Teens" are two skits for use with teenagers, in contemporary format for use in conjunction with discussions or presentations.

Recommended Uses: The "On or Off the Field" pamphlet should be used in conjunction with other presentations and activities as most teens are not motivated to pick up print material on their own. Teens indicated they thought the mailing insert was a good idea and should be used by insurance companies and departments of Motor Vehicles in routine mailings.

"Teen Talk" should be made a routine part of driver education classes, clubs, school assemblies, et cetera, with a short crash test film. It can be used as either a presentation or a discussion outline for more informal settings. It should be supplemented with print materials such as the "On or Off the Field" pamphlet. The Teen Skits can be used as part of the oral presentation and as an activity in school assemblies or school driver education units.

## HIGH RISK TRANSITIONAL DRIVERS

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### Print Materials

Pamphlet: "On or Off the Field" equates safety belt use with health and safety and use of belts as part of personal caring. Common myths concerning safety belts are refuted and inertial reel belt systems are discussed.

Mailing Insert: "Let's Get It On" provides a two-liner "caring" safety belt motivational message.

### Oral Material

Talkshow: provides personal experience narrative and visual impact through film on the importance of safety belts and health

Recommended Uses: Print Materials can be mailed with insurance billings, DMV mailings, and put on display at driver licensing offices or other locations

The talkshow itself was well-received, however, the evaluation group indicated they did not watch television talkshows and felt that radio was a more feasible approach with men of their age group. It is recommended that a television talk show effort not be actively pursued without further research of the receptivity of young males to this concept. Radio spots directed toward this group on popular stations may be a more cost-effective means of "mass media" approach. More research on motivational approaches and networks for the high risk transitional driver is needed.

The following section presents each of the materials described above with recommended applications.

Front Cover

Back Cover

# IF YOU LOVE ME



# DON'T HOLD ME



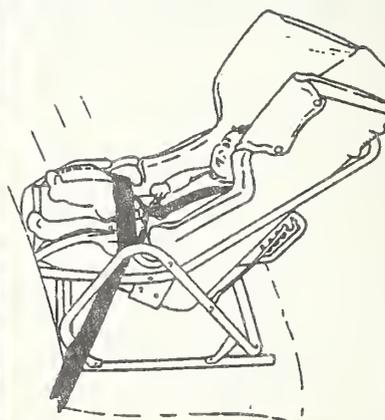
Three point harness system with partial shield adjusts quickly to fit the child. Convertible seats face to the rear for infant use, and adjust easily for forward-facing use for toddlers.

## THREE POINT PARTIAL SHIELD/HARNESS



Five point harness system gives extra protection but is more awkward to use. Child sits higher and can see out of car. No tether required for this model.

## FIVE POINT HARNESS



The use of a top tether gives added security and prevents the seat from moving forward in an accident. Seats designed for tethers must have the tether secured to the frame.

## FIVE POINT HARNESS WITH TOP TETHER

# I COULD WEIGH 400 POUNDS TODAY

In an accident at only 30 miles per hour, the force of impact can make me weigh over 400 pounds!

You wouldn't drop me from a 3 or 4 story window, but a 30 mph accident could hurt me just as much! (Imagine what could happen at highway speeds!)

And your body could crush me even if you were able to hold on to me. I know you are a good driver and parent, and you really love me, so --

Every time we get in a car, Buckle Me into an approved car safety seat, and then buckle up yourself (I don't want to grow up as an orphan).

Auto accidents are a far greater threat to my health than those childhood diseases you immunize me against, but it's important to protect me against both. I want to grow up to be a happy, healthy kid. And I want you to be there with me.



- o Until I weigh 20 pounds or am about 9 to 12 months, I should be in a rear-facing infant seat.
- o After I've outgrown the infant seat and until I'm about 5, I should be in a toddler size safety seat.
- o In hot weather, be sure to keep the seat covered as it can get hot enough to burn my skin.

- o I like soft toys, singing songs, or playing word and counting games in the car. They're entertaining and fun!
- o NEVER use seats or carriers designed for household use in the car.
- o In cold weather, put on the blankets AFTER I'm buckled in.

- o The safest place for me is in my safety seat in the middle of the back seat of the car.
- o Every time I'm in the car, use my safety seat -- CORRECTLY. If a tether is required, it must be used.

## LET'S BUCKLE UP FOR HEALTH AND SAFETY

Front Cover

Back Cover

# YOUR PHYSICIAN CARES



About you and your child's health and safety and offers you these tips



Three point harness with partial shield adjusts quickly. Convertible seats face to the rear for infant use, and adjust easily for forward-facing use for toddlers.

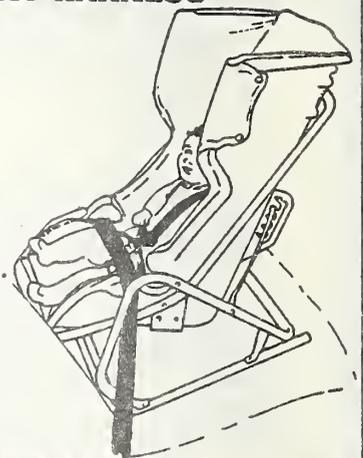
## THREE POINT PARTIAL SHIELD/HARNESS



Five point harness systems give extra protection but are more awkward to use.

## FIVE POINT HARNESS

The use of a top tether gives added security and prevents the seat from moving forward in an accident. Seats designed for tethers must have the tether secured to the frame.



## FIVE POINT HARNESS WITH TOP TETHER

## HEALTH AND SAFETY FOR YOUR CHILD'S LIFETIME

### MORE CHILDREN ARE INJURED OR DIE FROM AUTO ACCIDENTS THAN BY ANY OTHER ACCIDENT OR CHILDHOOD DISEASE

In a 30 mph accident, a 20 pound child can be thrown as hard as if he had been dropped from a four story window! The use of a crash-tested child safety seat every time

your child is in the car is one of the best ways to protect your child's health.

- o Good parents help establish good life-long health and safety habits by buckling up their child every time and then buckling up themselves.



- o Use the seat properly every time your child is in the car -- make sure all tethers, belts, and restraints are properly positioned and fastened.
- o Too old for safety seats? Use the safety belts in your auto from about age 5 on.
- o Be sure every adult is buckled up -- don't run the risk of having your child grow up as an orphan.
- o When your child outgrows an infant seat, make sure he/she rides in an approved toddler car safety seat until about age five.

**GOOD HEALTH FOR YOUR CHILD ISN'T JUST A MATTER OF LOVE, IT'S A MATTER OF LIFE!**

## Prenatal/Parenting Class Presentation

I know this is a happy time for you, and I'm sure you're anxiously awaiting the birth of your child, making lots of preparations, right? And think how perfect everything will be as you take your little bundle of joy home, wrapped in a blanket and safely in your arms.

But what if as you're going home or on an errand with your infant someone runs a stop sign and hits your car? Will your child be protected? Are you sure? If your child is being held in your lap, he or she can't be properly protected. Even in a low speed accident, the forces are so great that the baby would be torn from your arms and go flying into the dash or some other part of the car. Even if you were forewarned and could really hold on tight, if you are not wearing a safety belt, your body would be thrown due to the impact, and you could crush your child between your body and the car.

Hopefully, such a tragedy never will touch you or your family, but, unfortunately, we never know what the other guy is going to do. Most accidents occur in and around our own community, where we are familiar with our surroundings and do most of our driving. That short trip to the grocery store could be more hazardous to your child's health than any childhood disease.

Health -- we talk about it, and take it for granted; we expect and want our children to be happy and healthy. We give them lots of love, make sure they eat right, get plenty of rest, and immunize them against childhood diseases. But far too often parents forget to protect their children against their number one health risk -- traffic accidents.

In most states the use of child safety seats is no longer just a matter of love, it's the law! Virginia (Maryland, D.C., etc) is just one of the states that require infants and young children to be secured in a federally approved, crash-tested safety seat that meets federal safety standards. And once you have a safety seat, it must be used properly every time your child is in the car. Be sure you read the instructions before you use it.

What kind of seat should you buy? What should you look for? There are several types on the market. Some are for infants only; some convert from infant to toddler use; and some are intended for toddler use only. The type you select must fit your car -- ask to try securing it in your car before you buy. Or if that isn't possible, make sure it is returnable. An improperly used seat can be as dangerous as if your child is not secured at all.

Let's talk about some of the types of safety seats and some information which will help you select the best seat for your needs.

1. Discuss household seats, feeders, carriers, and that they are never to be used in the car.

2. Show pictures of the types of each of the following; discuss features and use:

- a) Infant seats
- b) Convertible seats
- c) Toddler seats

Aspects to include: seat positioning in car; proper use of belts, tethers; cold weather use and precautions for blankets and coats, etc.

A word of caution -- be very careful about purchasing a "second-hand" seat. Purchase only seats which are labeled that they meet Federal motor vehicle safety seat standards. These seats are manufactured after 1981. If a seat has been in an accident, don't use it. If you are unsure, don't use it. Check carefully for damage and missing parts or tethers.

(Pass out handouts on seats, brands, costs, and purchase locations)

This handout will give you an idea of where these seats may be purchased, cost, and proper use. Also included is an outline of features of seats that may help you in making a decision as to which seat is the best for your needs.

If you cannot afford to purchase a seat, there are several loaner programs available in the area. Check with your local hospital, obstetrician, state office of highway safety, or health agency for details. Most charge only a very small amount for seat loans for up to about a year.

And remember, when your children outgrow infant seats, keep protecting them by making sure they're safely in a toddler or child seat until they're old enough to use safety belts (about age 5). In a situation where a seat is not available (for example, in a friend's car), a child is better off in a safety belt than unsecured. Be sure the lap belt is low across the pelvis and not their stomach, and that the shoulder harness doesn't come across their neck. But any child is safer in a child safety seat, so use them whenever possible.

If you are firm and lovingly insist that your children use their safety seats, it will help them establish good health habits. And, amazingly enough, most kids feel more secure and loved when their parents buckle them up and then buckle up themselves. It's the single most effective thing you can do to protect your child against their number one danger -- auto accidents. Knowing that they're safe will also help you concentrate on your driving. And when you buckle up yourself, you are making sure you'll be there as they grow up.

Some other benefits of using child safety seats are that your child is less likely to get car sick, can see out of the windows better, and most importantly, they are effective in preventing injury to your child from sudden stops, swerves, and accidents.

Remember, love your child and hug 'em at home -- but when you're on the road, everyone should buckle up.

SHOPPING GUIDE FOR CHILD SAFETY SEATS  
 APPROXIMATE COST AND PURCHASE LOCATIONS WASHINGTON METROPOLITAN AREA

<u>SEAT BRAND &amp; STYLE</u>	<u>BELL</u>	<u>CRIB &amp; CRADLE</u>	<u>K MART</u>	<u>PENNEYS</u>	<u>SEARS</u>	<u>WARDS</u>
<u>Bobby Mac</u>						
Champion 411 Shield			\$60.		\$55.	\$49.
<u>Century</u>						
200 Three point partial shield	\$49.				60.	
300 Five point shield		\$37.	60.		60.	60.
Infant Love		27.	35.			
<u>Collier</u>						
Safe & Sound Three Point Shield				\$55.		
Safe & Sound II				60.		
Roundtripper Three Point Partial Shield		38.				
<u>Cosco</u>						
78 Five Point Shield		47.				
Safe T Mate				66.		
Safe T Shield		75.				
<u>Dynomite</u>		25.				
<u>Kantwet Shield</u>		45.				59.
<u>Kolcraft Hi Rider</u>				60.		
<u>Safe n Sound</u>					60.	
<u>Sears</u>						
One Step Shield					55.	
<u>Strolee</u>						
Wee Care 618 Five Point Shield		53.		60.	60.	60.
618SF Five Point		53.				
<u>Teddy Tot Astro</u>			50.			54.

## Talking Points for Health Care Professionals

I'd like to take a couple minutes to talk with you about a very important subject -- health and your car. Did you know that auto accidents are the leading cause of death for young children?

- Child safety seats should be used for all kids under age 5
- It's very important that young children be in a Federally approved crash-tested safety seat that meets federal safety standards.
- After about age 5, children always should be secured in a safety belt.
- Safety belts should be worn low across the pelvis, not the stomach. Shoulder harness should not be across your neck.
- In 30 mph accident, a 20 pound child can weigh over 600 pounds. This is equivalent to dropping child from a fourth story window.
- It is also important to buckle up all adults -- in an impact, unbelted adults can be thrown and literally crush a child.
- You never know when someone is going to run a stop sign or pull out in front of you, or be driving while intoxicated. Protect yourself and your passengers against the "other guy".
- Several types of crash-tested child safety seats are on the market now. Select one that is right for your car and child. (Provide a list of seats and purchase location if the parent would like this.)
- Auto accidents injure and kill more children each year than any disease.

Describe loaner programs if parent can't afford a seat. Refer to local program.

I really care about your health and that of your family. I know what driving can be like. You just never know what the other guy is going to do. I also know you want your child to have a bright, happy, healthy future with you. As your physician, one of the best prescriptions I can give you for your child's health and safety is to ask you to use child seats for your young children and safety belts for the rest of your passengers.

Front Cover

Back Cover

# ON OR OFF THE FIELD



## PLAY IT SAFE

## FAIRY TALES AND REALITIES

**MYTH:** An accident will never happen to me -- I'm a good driver.

**REALITY:**

The odds are that sometime in your life, you'll be in an accident. No matter how good a driver you are, you have no control over what the other driver will do. And the road could be slick or a tire could blow out. Wearing a safety belt can help you avoid serious injury better than anything else.

**MYTH:** I don't need a safety belt when I'm driving around town at low speeds.

**REALITY:**

Three out of four accidents happen within 25 miles of home -- and almost all accidents occur at low speeds.

**MYTH:** Safety belts can't possibly work -- after all, look how loose the shoulder belt is!

**REALITY:**

Today's safety belts are designed so you can move comfortably during normal travel. But upon impact during an accident, the belt's reel locks in place to keep you safely in your seat.

## PLAY IT SAFE, BUCKLE UP

# BELT THE ONES YOU LOVE

## IF YOU WANT TO STAY HEALTHY

Take control.  
Protect yourself  
and the people  
you love. Odds  
are that some-  
time in your  
life you'll be  
in an accident.  
And wearing  
safety belts  
is your best  
insurance for  
staying  
healthy.



## IF YOU'VE GOT IT, USE IT!

A pro ball player would never go on the field without his safety equipment. It's his best protection against injury. And if they are used, safety belts will protect you and those you care about.

## GOOD DRIVERS DO IT ON THE ROAD

A good driver knows the odds -- an accident can happen to anyone, anytime. The best defense is to improve your odds against injury. That means ... belt up!

## WATCH OUT FOR THE OTHER GUY!

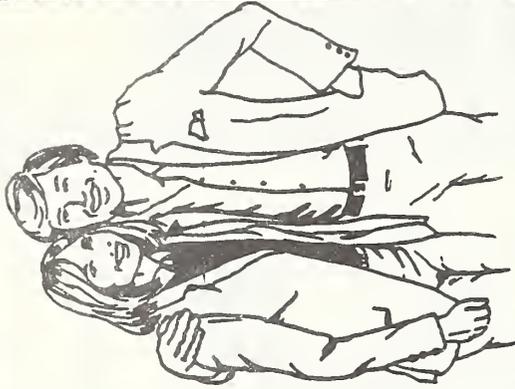
You never know what he's going to do or whether he's had too much to drink.

# STAY HEALTHY, BUCKLE UP!

Front

Back

**LET'S GET  
IT ON!**



**SAFETY BELTS MEAN  
YOU CARE**

## Predrivers Discussion Presentation

Let's talk for a few minutes about physical fitness and safety. When I say physical fitness or safety what comes to your mind? (List answers on board or chart)

What other things do your parents or older brothers and sisters do for their health or safety that we haven't listed? (List)

When you're riding in a car -- what are some things you've seen the people you ride with do to be sure your trip is safe? (List)

Of the people you know who are really good drivers, what have you seen them do to provide for the safety of themselves and their passengers? (List) What are some reasons people don't wear safety belts? What are the reasons to wear safety belts?

Most of you will be driving soon or are already learning. What is one of the most important things you can do to help prepare yourself to be a good driver? Right, it's to get into the habit of wearing your safety belt now and making sure you ask all other passengers in your car to do so. A lot of teenage drivers are sharper than adults because they realize that it's really smart to wear a safety belt and make sure their friends and parents wear them too. It shows they are responsible and really care about themselves and their friends.

Have you noticed that when you're wearing a shoulder belt it seems loose? What do you think are some reasons it's loose? Right, the reason is both comfort and safety. Safety belts in cars today are inertial locking. What is inertia? Inertia is, simply, movement. Inertia belts are designed with a pendulum inside so that when a car stops suddenly the pendulum swings forward and locks into a set of teeth, like a gear (show diagram). This locks the belt and prevents your body from moving forward with the force of the stop or impact. If you didn't have a shoulder belt on, even with just a lap belt your upper body could be thrown into the dashboard or the seat in front of you.

So what does all of this have to do with physical fitness and health? (List) You're all right because the leading cause of injury and death for young people is traffic accidents. During the rest of your life cars become increasingly important and you'll spend more time in them -- whether it's running errands, on trips, or on a terrific date. The odds are that some time in your life you will be involved in an accident. No matter how good a driver you are, you never know what the other guy is going to do -- he may be drunk, tired or just had an argument and is upset and not paying attention. And you never know when a tire could blow out or the road may be icy or something else could cause an accident over which you have no control. Wearing safety belts is the single best thing you can do to protect yourself and the people you care about. Your health, appearance, and future are all at stake.

Don't hesitate to ask your date, your parents, or your friends to always buckle up. They'll be happy you care about them and their safety.

Have you ever seen a football player on the field during a game without his safety equipment? It's designed to protect him against impacts from other players. And a safety belt is designed to do the same thing in your car -- it reduces your chance of injury better than anything else you can do to protect yourself against the other guy.

Page 2

Wearing a SAFETY BELT helps the driver keep control of the car if it ever skids or you have to stop or swerve suddenly. How? Right, by keeping him or her behind the wheel and in control, instead of sliding across the car seat and away from the controls.

Good drivers and passengers care about the safety, health and happiness of people in their cars. Show the people you ride with you really care about them. Get them to buckle up for health and safety.

## Suggestions for Activities for Predrivers in Conjunction with Presentation

Construct and conduct tests of egg-carrying cars to determine effects of belts vs. no belts.

Design activities which may be used to satisfy portions of merit badge requirements for scout troops, etc.

Conduct a school survey of belt use among drivers entering school parking lot. Conduct a school campaign to encourage belt usage. Conduct follow-up survey to determine if belt usage improved after campaign.

Conduct a pledge card campaign for safety belt usage among teachers, students, friends, and families. Hold a drawing for prizes for those who pledged to wear their belts.

At a school function, hold drawings for prizes donated by local merchants to reward persons who signed pledges to wear their belts. Advertise the campaign ahead of time. Have art or science classes design posters and flyers.

## Community Service Activities

Set up a public information booth about safety belts and child safety seats at a shopping center or fair.

Design and distribute safety belt and child safety seat posters to stores, churches, etc.

SKITS FOR PREDRIVERS AND TEENAGE DRIVERS AND PASSENGERS

SKIT 1

Scene: 2 Football players and 2 cheerleaders still in their uniforms after a game in which their team won

CHEERLEADER 1: What a fantastic game! We sure have a terrific team and the school spirit -----!

CHEERLEADER 2: Greg -- that catch you made in the last minute! I don't know how you did it! They were all over you!

PLAYER 1: He was great, as always, but I sure don't know how you got up after that tackle! Man you got creamed!

PLAYER 2 (rubbing shoulder): I tell you, these pads sure helped. Those guys hit me from all sides. If I hadn't had the right safety gear -- well, Sue, you may have been visitng me at the hospital instead of going out tonight.

CHEERLEADER 2: You did a great job and I'm glad you're okay. But I sure wish Mike and Jenny could have been here.

CHEERLEADER 1: Yeah, we're going to the hospital now to see them.

PLAYER 1: Jeff said he talked to the patrolman at the hospital last night -- some drunk ran a stop sign and hit them head-on. He said that if Mike and Jen had been wearing their belts they would have come out of it with a couple bruises instead of ----- (voice falls off).

PLAYER 2: I'm really surprised they weren't buckled up. He's always so uptight about making sure his safety gear is okay before we go on the field. I guess you just never think it's going to happen to you.

CHEERLEADER 2: Guess it goes to show that we all need to use safety equipment in the car too. You never know when some idiot is going to smack into you, right Greg? (Everyone laughs)

CHEERLEADER 1: (All in car) I don't think I'm going to take any more chances -- I'm going to wear my belt all the time now.

CHEERLEADER 2: So am I

PLAYERS 1 and 2: We all are.

SKIT 2

SCENE: Simulate an auto by placing two chairs next to each other, with ribbons attached to chair back and sides to simulate safety belts (use tape on end of each ribbon that can be fastened to the other side of the chair when "belts" are put on.

Couple walks on stage, arm in arm, and gets into "car".

GUY: You really look terrific tonight!

GIRL: Thanks. I'm so excited about the concert -- how did you manage to get tickets?

GUY: It wasn't easy, but it was worth waiting in line with Tom all day.

GIRL: What are you waiting for? Start the car and lets go!

GUY: We forgot something.

GIRL: Huh?

GUY: You know Carol, I really like you a lot, you're fun to be with, and, well, I want us to go together. I want to prove to you how much I really care (Reaches around her, arm across the seat back).

GIRL: Oh really? I don't ----- (Interrupted by Guy)

GUY: Really, from now on (picks up belt and pulls it across her) whenever we're in the car, we both buckle up.

GIRL: I don't want this thing on -- it messes up my clothes and besides -- it's loose

GUY: I saw them demonstrated on a TV show last month -- they are inertial locking. That means they lock in place due to sudden movement like in an accident.

GIRL: Maybe. But, I still don't think they work.

GUY: I didn't either. But last week Mom was in an accident that made me start doing a lot of thinking. She had to stop fast to keep from hitting a car that pulled out in front of her. Neither one was wearing a safety belt. My brother was thrown against the back of the front seat. Fortunately he only had to have a few stitches, and Mom had a couple bruises. It could have been so much worse.

GIRL: That's too bad about Jimmy. But I'm still not convinced.

GUY: Look at it this way, is it worth the risk? From now on everyone I care about is going to buckle up when they ride with me. I don't want to take any chances with the health and happiness of people I love.

GIRL: But you're a good driver. I don't have to worry about you.

GUY: I know I'm a good driver, but just like what happened to my family -- you never know when some idiot is going to pull out in front of you.

GIRL: Well, I'm still not sure that they really work. Guess you'll have to convince me, but I'll wear this tonight if it means we can get going to the concert.

GUY: (Grins and kisses her). Let's work on the convincing later. Now -- let's go to the concert.

## Teen Talk Presentation for Teenage Drivers and Passengers

When was the last time you saw a football or baseball game? Think about it for a minute . . . Visualize the players and what they looked like . . . What did you see? (Probe as answers are given and lead students toward what players were wearing -- safety equipment).

How many of you watch car races or demolition derbies? What safety precautions do professional drivers take? (Lead discussion toward safety belts and harnesses)

Why do professionals use protective equipment? Right -- to protect their bodies against unknown physical contact or accidents and to make sure they stay healthy so they can keep doing their jobs.

How do you feel about people who drink and drive? What can we do about it as a society? What can we do about it as individuals? When you're in a car, how can you protect yourself against drunk drivers?

The point is, we never know what the other guy is going to do any more than you know what the person next to you is thinking. The person in the other car may be drunk or tired or in a hurry.

Traffic accidents are just that -- accidents. No one intends for them to happen, but chances are that you will be involved in a traffic accident sometime in your life. That guy in the other car could injure or kill every one in your car before you even know what happened.

One of the best ways to stay physically fit and protect the health and appearance of the people you care about is to do what professionals do -- use safety equipment. Not helmets or shoulder pads or goggles in the car -- but something much simpler. What do you think is the single most important thing you can do as a good driver or passenger to protect yourself? Right, wear safety belts.

Have you ever noticed how loose the shoulder belt seems to be? How can anything that loose do any good? Well, who's heard the term "inertial locking"? What does it mean? Right -- because inertia is motion, it means that a sudden movement or stop will cause a pendulum inside to swing forward and lock the belt into place (show picture-diagram). So, while under normal conditions you can move and reach, in an impact you're protected against the "second collision". What's that? Let's look at a film for a few minutes --

Discuss film -- the second collision.

Keeping physically fit is something we'd all like to do and as they say in the commercials, if you have your health, you have everything.

And wearing safety belts every time you drive or ride in a vehicle is the single most important thing you can do to stay healthy and protect against "the other guy". It shows you really care about yourself and the people who ride with you and demonstrates good defensive driving habits.

## TALK SHOW FOR ALL AGE GROUPS, WITH PRIMARY FOCUS FOR HIGH RISK DRIVERS

### CONCEPT AND PRESENTATION:

The attached is an EXAMPLE of how a talk show could be structured for the high risk transitional driver as a primary audience. The following outline provides the FOCUS for such a show, recognizing that scripts are not used, and conversation is the primary medium of delivery in television talk shows.

**SETTING:** Talk show such as Johnny Carson or Hour Magazine or local talk show. It is recommended that this format may best work in the locally-produced talk shows initially. Radio talk shows should be formatted using well-known local personalities, physicians, and possibly state police, although police have the weakest influence with the high risk group.

**GUESTS:** Major conversants should be persons whose lives were "Saved by the Belt". At least one should be a star or a public figure. A person who is handicapped due to an accident in which belts were not worn but is now a use advocate would also be particularly effective. Many state highway traffic safety organizations maintain lists of appropriate volunteer speakers.

**ACTIVITY:** The use of a film adds interest and creates an impression on the audience. Usually this creates a visual impression that will be retained far longer than verbal messages.

TALK SHOW FOR HIGH RISK TRANSITIONAL DRIVERS

HOST: I'd like to welcome both my guests, X and Y, to the show this evening. It's a pleasure to have you here. I understand both of you share a common type of experience and have been doing a lot of public service work?

X: That's right; we've both been very active this past two years in speaking to public interest groups about a really important subject -- one that touched our lives deeply.

Y: We want to share our experience with you and the audience. Both X and I were almost killed two years ago under similar conditions.

HOST: I remember hearing about your accident.

X: Yes, two Christmases ago I was heading home from shopping and was hit almost head-on by a drunk driver. Y was involved in a similar accident when a car crossed over the center line and hit him head-on. In my case the other driver was killed instantly, and, fortunately, was alone.

Y: The three passengers in the car that hit me were killed. One was thrown about 150 feet, and a teenage girl went through the windshield. The driver lived but lost the use of his legs. They said later he swerved to miss a dog and lost control.

HOST: That's terrible! But you both look okay to me -- how could you have escaped injury in those types of accidents?

X: Well, Host, that's why we're here -- to spread the word about our "saved by the belt" experience. If either of us had not been wearing safety belts (shudders) well, I hate to think what would have happened.

Y: They told me later that if I hadn't been wearing my safety belt, I wouldn't have had a chance. Even though I was only going 25 at the time, and the other car about the same, the force of the crash was so great I could have been thrown out of the car or through the windshield. My car rolled after the impact and there wasn't much left of it. Because of my safety belt, I was kept in my seat and suffered only mild bruises. The funny thing is, I had just started wearing safety belts because my girlfriend had been after me to take care of myself and insisted wearing belts was a part of staying healthy.

X: I'm totally convinced that my safety belt saved my life. I feel lucky to have only suffered a broken leg.

HOST: Sounds like you both were really lucky. But those types of accidents don't happen all that often do they?

X: We never think any accident will happen to us. I know I never believed that belts really worked until just before that accident; I started wearing mine after talking to a friend who had rolled her car several times when it went out of control in the rain. Both she and her baby came out without a scratch because they were both in safety restraints. It made me a believer. No matter how good a driver you are, you never know what the other guy will do: whether he's drunk, or not paying any attention to what he's doing.

HOST: I know you're right, but how can we convince everyone to use their belts?

Y: We'd like to prove our point by showing a short film, okay?

HOST: Sounds good to me.

SHOW FILM

X: This film really demonstrates what happens in an accident. A lot of people are not aware of the second collision, and how much safety belts work.

HOST: But, how can belts work when they seem to be so loose?

Y: I'm glad you brought that up, because a lot of people don't understand how shoulder belts work. They are called inertial locking -- that means that under normal conditions they are loose enough to allow you to reach the dash and move comfortably. But in an impact during an accident, the sudden motion causes a pendulum to swing forward in the reel and it locks the belt in place. That means that your body won't move very far.

HOST: I'm afraid we're about out of time. Thank you both very much for sharing your experiences with us. It seems really clear that safety belts work, and I enjoyed your film and the discussion.

X: Host, I'd like to personally appeal to everyone watching to please always buckle their safety belts, and be sure your children are in federally approved child safety seats. It's the single most important thing you can do to protect yourself and the people you love.

DETAILED STUDY DESCRIPTION

## BACKGROUND

The National Highway Traffic Safety Administration (NHTSA), Department of Transportation, has initiated a nationally scoped program to encourage increased usage of safety belts and child safety seats. A dual approach is being used for this program; first, a mass media effort to increase awareness of the need for use of safety restraints directed toward the general public, and second, the utilization of networks for direct appeal to individuals.

It is this second approach, that of motivating the individual through established networks, was addressed by Ebon Research Systems. A previous contract completed by Tarrance Associates was directed toward five critical target groups:

- Parents of children under age 5;
- Predrivers, ages 12 to 16;
- Teenage drivers and passengers, ages 16 to 19;
- High-risk transitional drivers, ages 19 to 24; and
- Elderly persons, ages 60 or over.

Motivational approaches were identified as they applied to each target group, and important messages and methods of communication were delineated by the Tarrance study.\*

## RESEARCH APPROACH AND METHODOLOGY

### Objectives

-----

In order to develop means of impacting on the use of safety belts and child safety seats, the current contract was developed to identify existing materials or develop others which are suitable for use with each target group based on the critical approaches and messages from the previous study. Ebon undertook this effort with the following project objectives:

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\*Benson, Stephen, Tarrance Associates. Motivation of Restraint System Usage Among Specific Target Groups of Drivers and Passengers. DOTHS-806-470, July, 1983.

- 1) To identify and develop suitable test materials, based on general guidelines from the Tarrance study, and
- 2) To evaluate the effectiveness of these potential materials for:
  - increasing knowledge
  - creating more positive attitudes
  - increasing usage of safety restraints

These objectives were met by focusing on the development of materials which will be useful in reaching the specified target groups, will be cost-efficient to use, and may be combined for use with various networks among each of the target groups.

This report provides a synopsis of the procedures, methodology, and resulting materials of the project. Each stage of the project will be summarized as it relates to the tasks delineated for the contract.

#### TASK I MATERIAL DEVELOPMENT AND WORK AND EVALUATION PLAN

As a part of Task I for the project, a workplan was prepared and presented to NHTSA. This workplan provided detailed procedures and sequences for completion of the project.

In the first stage of the project, the Final Report from the previous study of Tarrance Associates was reviewed for identified motivational approaches for target groups, themes, messages, and suitable networks. Tarrance Associates were contacted to obtain additional information and clarifications of their findings; this information proved valuable during the several stages of this contract.

Meetings were held with NHTSA representatives to obtain copies of materials currently in use, and an extensive list of other potential sources of materials was developed. These potential sources were contacted and copies of materials and descriptions of their motivational programs were obtained. Appendix A provides a summary listing of the agencies and organizations contacted as a part of this process. As a part of Task I, existing material review began, and provided a basis of early discussions with NHTSA personnel regarding specific needs for materials in agency programs.

## Target Groups

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Following discussions with the CTM which integrated the findings of the previous study, Ebon project objectives, and material needs of NHTSA, the following target groups were identified as the focus of material development by Ebon project staff:

- a) Parents of young children under age 5;
- b) Predrivers, ages 12 to 16;
- c) Teenage drivers and passengers, ages 16 to 19; and
- d) High risk transitional drivers, ages 19 to 24\*

The elderly group was eliminated based on the Tarrance findings that there were little, if any, effective means of influencing the attitudes and behavior of this group.

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\* High risk transitional drivers were defined by Tarrance Associates as those males who were ages 19 to 24, not working or not attending school full time, or were not married.

## METHODOLOGY

### TASK II DEVELOPMENT OF SUITABLE TESTING MATERIALS

#### Existing Materials

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For each of the four target groups, the messages, delivery methods, and general approaches were identified from the previous study and became the pivotal criteria for Ebon's material evaluation and development process. These critical factors taken from the Tarrance study are summarized and presented in Appendix B.

The evaluation of existing materials was designed for two purposes:

- 1) To determine if any materials were applicable to the four target groups in view of the established criteria;
- 2) To provide factual information for development of new materials for testing.

Several reports of recent research in safety belt use motivation were reviewed. Two Ebon analysts assembled, categorized, and reviewed over 75 pamphlets. The format for these evaluations is presented in Figure 1. These criteria represent a combination of good design concepts, mechanics, aesthetics, and readability. Sixty-five points were possible in the rating, and a minimum score of 40 was required for further evaluation of message content, aesthetics, presentation, and applicability to target groups. Based on these evaluations, none of the materials were directly applicable to the target groups for this project.

Figure 1  
Existing Material Evaluation

Rate each piece of material on the following scale:

	Excel	Good	Avg.	Below Avg	Poor
VISUAL APPEAL overall	5	4	3	2	1
Cover Design	5	4	3	2	1
Internal Design	5	4	3	2	1
VERBAL APPEAL overall	5	4	3	2	1
Use of Headings	5	4	3	2	1
Short Paragraphs	5	4	3	2	1
Easy to understand	5	4	3	2	1
CREATES AWARENESS	5	4	3	2	1
BELIEVABLE	5	4	3	2	1
UNDERSTANDABLE	5	4	3	2	1
CREATES INTEREST IN TOPIC	5	4	3	2	1
MOTIVATES	5	4	3	2	1
INCREASES KNOWLEDGE	5	4	3	2	1

READING GRADE LEVEL IS: \_\_\_\_\_

SUMMARIZE YOUR FINDINGS FOR EACH MAJOR EVALUATION GROUP:

Visual Appeal:

Verbal appeal:

Creation of awareness:

Believability

Understandable

Creates interest

Increases knowledge

CHECK APPLICABLE GROUPS FOR THIS MATERIAL:

PARENTS

TEENAGE DRIVERS

PREDRIVERS

HIGH RISK DRIVERS

## DEVELOPMENT OF NEW MATERIALS FOR TESTING

### Background

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The following synopsis of the most important message and material needs are outlined below as they pertain to each of the four target groups.

#### Parents of Children Under Age 5

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- Both educational and motivational in nature
- Provide information on selection, purchase, and correct use of child safety seats
- Urge parents to wear their belts too -- the concept of "don't make your child an orphan"
- Create awareness of the effects of inertia in an accident
- Other messages include:
  - watching out for the unknown -- the "other guy"
  - health and safety
  - good drivers protect their passengers and themselves
- Develop print materials and oral presentations for use with prenatal classes and other types of parenting group networks

#### Predrivers, ages 12 to 16

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- Safety belt usage as it relates to good health and safety
- Describe how inertial locking safety belts work
- Safety belts are "cool", and caring about oneself and others means one should use and get others to use their belts
- Materials which may be used in schools and by organizations such as scout troops, clubs, et cetera

## Teenage Drivers and Passengers, ages 16 to 19

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- Emphasis on health and safety messages
- Protection against the "other guy", and the unpredictability of an accident
- Networks for use by schools, internal organizations, insurance companies, departments of transportation/driver licensing
- Attempt to popularize safety belt usage, utilizing peer pressure

### High Risk Transitional Drivers

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- Materials should emphasize:
  - health and safety
  - the "other guy"
  - inertia-locking safety belts
- Develop materials for print, and oral presentation in a talkshow framework

## I. GENERAL METHODOLOGY

### Material Development

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Based on the above-outlined concepts, materials were developed which were suitable for each of the target groups. Several guidelines were followed in the development of materials. These served as a controlling basis for effective material development and were referenced throughout the developmental process. These guidelines included the following:

- (a) Meets important message requirements for target group;
- (b) Is applicable for use in identified networks;
- (c) Meets minimum criteria of:
  - 1) Visual appeal and form designed to create the desire to pick up the material and read it
  - 2) Verbal appeal (language is believable and suitable for target audience)
  - 3) Reading level is appropriate for target group, does not exceed grade 8 level for adults and is at or below school-age persons reading level. Reading level was evaluated using the SMOG\* formula.
  - (4) Accuracy of information, verified by NHTSA
  - (5) Oral presentation length restricted to 10 to 20 minutes to keep interest of target group, and allow time for questions, while maintaining a length suitable for application with most groups
  - (6) Provide outlines of subject matter for use by health care professionals to allow them freedom to cover the subject within their personal style, yet assure accuracy of information presented
  - (7) Materials are designed to create awareness, interest and promote adoption or behavior change
- (d) Meet evaluation criteria for form, consistency, believability, workability, and cost-effectiveness for both production and distribution

\* The SMOG formula assesses reading level quickly and easily. It is used as follows:

- 1) Select 10 consecutive sentences near the beginning, 10 near the middle, and 10 near the end of the text;
- 2) In these 30 sentences, count the number of words having three or more syllables;
- 3) Take the square root of this number and add three to get the SMOG readability level.

Based on these principles, materials were developed for testing with each of the target groups. A creative approach was used which integrated all desired concepts and yet followed the precepts of effective materials for design and presentation. These materials are described below as they apply to each of the target groups.

## II. MATERIALS FOR TARGET GROUPS\*

The following materials were developed for prenatal/parenting groups:

### A. Parents of Children Under Age 5

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#### 1) Prenatal/Parenting Class Presentation

An oral presentation for direct use in parent organizations such as prenatal classes, parent-toddler groups, or daycare centers was developed. This presentation was designed to appeal to good parenting practices and create awareness of the dangers faced by children when riding in vehicles. A primary focus was the idea that safety for children in automobiles is a part of maintaining good health for the child. Secondary messages included the effects of inertia in an accident, dangers present to children from unrestrained adults, types of child safety seats, and proper usage of seats.

#### 2) Shopping Guide

A flyer type handout was prepared which identified several types of seats available on the Washington market, their availability in area chain stores, and approximate costs. This was used with the oral presentation, above.

#### 3) Talking Points for Health Care Professionals

A second oral presentation, in outline form, was developed for distribution to health care personnel, such as pediatricians or family practitioners, and was designed for brief presentation time in a busy atmosphere in order to encourage its use. This presentation provides information on the critical messages identified for use with parents, but is couched in such a manner as to command attention from the parent because of the relationship usually present between physician and parent.

#### 4) Pamphlets

Two pamphlets were developed for use with parents. One, "Your Physician Cares", was designed for distribution by physicians, either in waiting rooms, or in conjunction with the oral presentation. It is designed to primarily focus on health concepts while providing critical information on child safety seats.

A second pamphlet, "If You Love Me", has potential for a much broader base of appeal to all types of parents, and application with many parenting groups such as prenatal classes or toddler-parent classes. It was developed for stand-alone capability as well as use in conjunction with either of the oral presentations.

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\*Refer to the initial summary section for display of all materials discussed in this section, pages 6 to 27.

## B. Predrivers, Ages 12 to 16

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Both oral and print materials were developed for predrivers.

### 1) Predrivers Discussion Presentation

A "formal" oral presentation was written which provides motivational and instructional information on the messages identified as appropriate for this target group. It is written in an interactional format to attain interest initially, foster discussion, and provide information without being "preachy" or pretentious. It has been Ebon's experience that such an approach is typically well-received by young persons.

### 2) Teen Skits

Two skits were designed to incorporate health/safety messages from a peer-relationship perspective. These skits are set in typical teen environments and are designed to be acted out by students themselves as part of a class, school assembly, or other activity. They were developed to be applicable also to the teenage target groups.

### 3) "On or Off the Field" Pamphlet

This pamphlet incorporated important themes into a setting of health and safety and was intended to provide a "catchy" method of approach to the topic. Several common myths are treated in an effort to educate this group. This pamphlet also was designed to be applicable for testing with the teenage drivers and passengers and the high risk transitional drivers. Pamphlets which are transferable to other groups are desirable because of the cost-effectiveness associated with fewer materials in print.

## C. Teenage Drivers and Passengers

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Oral and print materials also were developed for teenagers. These materials followed the applicable guidelines for content, approaches, and messages.

### 1) Teen Talk Oral Presentation

The oral presentation, as with the presentation for predrivers, was formatted for interactive discussion. It was designed to provide educational and motivational information on the need for use of safety belts, belt usage as a sign of caring, and information on how inertial belts work.

### 2) Teen Skits

The skits were developed for applicability with teenagers as well as predrivers, and are described above.

### 3) "On or Off the Field Pamphlet"

The pamphlet discussed for predrivers also had application for testing with teenagers; the advantages of multi-group usage have been discussed in the section above.

### 4) "Lets Get It On" Mailing Insert

A two-sided mailing-type insert was prepared that was designed to project a simple, catchy message to encourage use of safety belts.

#### D. High Risk Transitional Drivers

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Based on the previous study, it had been determined that talk shows were a method of reaching high risk drivers. Little is known about other methods of approach since there are few established networks for these young men because of their transitional lifestyles.

##### 1) Talkshow

A conceptual format was developed for a talk show and a sample script of how such a show might be conducted was prepared. This framework and example used a personal history format with information on safety belts as a part of maintaining good health and how inertial systems work.

## RESULTS AND ANALYSES

### TASK III EVALUATION OF MATERIALS

#### A. Evaluation Methodology

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A combination formal/informal evaluation methodology for the focus group testing process was developed which combined the use of both written (formal) instrumentation and discussion (informal) evaluations.

The written evaluation consisted of three types of instruments. First, a pretest was designed to assess the focus group's knowledge, attitudes, and self-reported behavior prior to exposure to any of the test materials (Appendices C and D). Second, a posttest was designed to determine if any changes had occurred in knowledge, attitudes and expectations for change in behavior (Appendices E and F) and to determine general attitudes toward the materials themselves. These tests were different for the parent groups because of the emphasis placed on child safety seat information for parents rather than the safety belt messages for the predrivers, teens, and high risk drivers. Appendix G summarizes the results of pre- and posttests.

The third type of instrument was designed to provide formal written evaluation of oral presentations (Appendix H) or pamphlets (Appendix I). These instruments assessed attitudes toward the materials and their presentation, knowledge gained, affect, believability, clarity of messages, and applicability to others perceived as being similar to themselves.

A set format was used for each group in order that responses could be evaluated in comparable perspective. For each session, a pretest was given, the first material presented, and a posttest was given. Then written evaluation of the material was completed, followed by discussion of the material. This sequence allowed formal assessment of results and changes in knowledge or attitudes as they pertained to individual materials, without the complicating influences of discussion or multiplier effects of contacts with more than one piece of material prior to evaluation. Discussions of the materials were designed to elicit further critiques of the materials and concepts during focus group sessions.

## B. Focus Group Evaluation Sessions

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Focus groups are small groups of eight to fifteen people, that were designed to enable free-flowing discussion based on a set of criteria. They were moderated closely by trained personnel so that a wide variety of responses and ideas were obtained in a non-structured manner while maintaining conversation along desired lines. Two focus groups were held for each of the four target groups to evaluate both oral presentations and those materials in print form.

### Group Selection

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Focus groups were selected based on several criteria. NHTSA asked that at least one prenatal class be used to evaluate the parent materials, and a toddler-parent activity class\* was used to attain feedback from parents with small children living at home. This was seen as important because of the need to encourage parents to transfer their children to toddler type seats once their babies have outgrown infant seats. The prenatal class consisted of five couples in childbirth preparation class at a Washington area women's hospital. They were first-time older parents, and most had at least some college. The toddler-parent group was a mother-child class held at a suburban YMCA; most mothers had some college or had completed college.

The groups for predrivers and teenage drivers and passengers were selected from public school classrooms in order to reduce the possibility of skewed responses by selecting young people who were "joiners" such as those involved in Scouting. By selecting classroom groups, the possibility of reaching a wider spectrum of respondent attitudes and knowledge was increased. Two predriver groups were selected from sixth grade Middle School science classes, and ranged in age from 12 to 14. The two teenage groups were selected from High School driver education classes and ranged in age from 16 to 19.

The two groups of high risk drivers were selected from men meeting the definition of high risk transitional males who were attending testing sessions for the department of motor vehicles driver licensing in Washington, D.C.

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\*The toddler-parent class was an activity class for mothers and their toddlers that involves exercise, learning activities, games, et cetera.

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The results of the focus group evaluations will be discussed from more than one standpoint for each of the target groups; first, results of pre- and post-testing, and second, results of the formal written evaluations and informal discussion evaluations for each of the materials.

#### Parents of Young Children

Two types of parent groups were selected for the evaluation focus groups and their results shall be treated separately here.

##### Group 1: Childbirth Preparation Class (Prenatal)

Five couples were in this group which after pretesting was given the "Prenatal/Parenting Class Presentation" and the "Shopping Guide" for evaluation. The following improvements in knowledge and attitudes were noted between pre- and post-test true-false questions:

##### Pretest/Posttest Results:

- All participants had indicated incorrectly in the pretest that they believed an infant held in an adult's arms would be safe in a collision. In the posttest, all indicated (correctly) that this is not the case.
- Only ten percent indicated correctly in pretest that accidents are a greater threat than accidents to children's health; in posttest, all responded correctly.
- All members of the focus group demonstrated that they had correct background knowledge of the following in the pretest:
  - good drivers can be involved in accidents, so they need to wear safety belts
  - feeder seats should not be used in cars
  - child safety seats must be secured correctly to be effective
- The one person that incorrectly indicated in pretest that children were safest in the front seat answered correctly in the posttest
- Understanding of the "looseness" of interial locking belt systems was only slightly increased from pre- to posttest (changing from 10 to 20 percent answering correctly from pre- to posttest)

## Material Evaluation Results

Based on the information received in the prenatal/parent class presentation, the prenatal group experienced the following changes in knowledge, attitudes, and behavior from pretest to posttest and evaluations:

- All reported at least "sometimes" belt use prior to exposure, with 20% saying they always wore their belts. After exposure, 50% stated they would definitely wear their safety belts more often; and another 40% said they would probably wear them more often.
- All indicated they will now definitely use child safety seats for children under age four every time they are in the car.
- Forty percent will now make sure their friends wear their belts (a 100% increase over the pretest).
- None felt they would insult their friends if they put on their belts in pre- or posttest.
- All knew in pre- and posttest they should wear their belts.
- Seventy percent felt the information they received was very useful with another 30% saying it was somewhat useful, and all felt someone else like them would find the information valuable.

## Group 2: Parenting Group (Mothers of Toddlers)

The following results for pre- and post-tests were noted for the toddlers' parents group (eight women\*) who were given the "If You Love Me Pamphlet" for formal evaluation, and the "Your Physician Cares" pamphlet for discussion only; they did not receive the oral presentation.

### Pretest/Posttest Results

- No change in true-false results were noted. The mothers (with the exception of one person) answered all questions correctly (see exceptions below), in both pre and posttest, demonstrating a good understanding of the use and need for safety belts and child safety seats.  
Exceptions: One person, who answered correctly in pretest, answered incorrectly in posttest on the issue of use of only federally approved child safety seats and where a child is safest. The two persons who incorrectly answered on the looseness of safety belts in pretest, also answered incorrectly in posttest.
- Seventy-five percent indicated in pretest they presently wore their belts almost all the time (twenty-five percent always wore their belts); and thirty-eight percent stated they now will wear them more often.
- Eighty-seven percent indicated after exposure they will always use child safety seats. Twelve percent stated they will probably use them.

- Half will now make sure their friends wear belts; none felt in pre- or posttest that their friends would be insulted if they wore their belt.
- All knew in posttest that they should always wear their belts (an improvement of 12 actual percentage points) and half will now make sure everyone in their car is wearing them (a 12 % decline from pre- to posttest).
- All felt the information received was useful and that others would find it valuable.

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\* The toddlers of these women were present during the focus group, and due to the activity of the children, the results may have been affected to a small extent.

## Material Evaluation Results

In general the oral presentation was well-received. All felt the presentation was effective, with half indicating it was very effective and all but one person reporting they felt it was geared toward someone like them. All stated the presentation was believable and commented that it increased awareness and/or confirmed their desire to purchase and use an approved child safety seat as well as wear their own safety belts.

The focus group members liked the general information as well as the moderate use of statistics. They also appreciated the use of child safety seat purchase locations handouts and felt it would be a particularly valuable part of such a presentation for parents. Some felt, however, that NHTSA should develop and publish a list ranking the effectiveness of various makes of seats. This appears to indicate that there is a lack of understanding on the part of consumers that seats which are federally approved are comparable when properly used.

All stated a presentation of this type should be a regular part of a course for parents. Those who did not presently have a child safety seat stated they now plan to purchase one (including those who previously had no plans to do so).

Suggestions received for information directed at parents included the following:

- Include a short film of crash tests in belts and child safety seats vs. no belts and no safety seats
- Have available case histories to use in demonstrating points or countering arguments during discussion
- Develop mass media ads to be run on commercial TV during afternoon "soap operas" and during the evening news programs. These public service advertisements could include test crashes or "put you in the driver's seat during an accident"
- Urge manufacturers to include better installation and use instructions with child safety seats

The "If You Love Me, Don't Hold Me" pamphlet was much better received than the pamphlet "Your Physician Cares". Parents felt that they and others like them would be much more receptive to the first pamphlet. In particular, some comments indicated the "If You Love Me" concept produces a healthy sort of "guilt" to which parents would respond. The following results were noted in the written evaluation for "If You Love Me":

- Parents felt it was easier to read than the physician pamphlet, they learned something from it, and they liked the "If You Love Me" message.
- Three persons would definitely pickup and read it, and all others might pick it up.
- All felt it was believable and most felt it would have an effect on others like them.
- Pictures used in the publication phase should be photographs of a toddler-age child rather than drawings.

The oral presentation for use by physicians was not tested formally, based on NHTSA desires to only have material available for distribution to physicians, and because of the format desired for this type of material.

Based on the comments received from the parents' groups, no modifications or revisions of the materials were necessary.

## Predrivers, Ages 12 to 16

In the first series of focus group evaluations, two sessions were held with students from a middle school science class. The following results were noted from pre- to posttest for each group:

Group 1: 16 students, 9 males, 7 females

This group received the Predriver Discussion Presentation only.

### Pretest/Posttest Results

Small changes in knowledge were demonstrated in the posttest for this group which received the oral presentation.

- The largest changes occurred in increased knowledge of inertial locking safety belts and in recognition of the concept that using belts is a part of good health habits. Over twice as many equated health and safety belts in the posttest as had in the pretest (Knowledge increased from 37% correct in pretest to 81% correct in posttest).
- Over half self-reported they wear belts most of the time in pretest. Half said after material exposure that they would definitely wear their belts more often, and the other half said they would probably wear them more often.
- In pretest, 44% answered correctly that loose belts did not mean they weren't working properly; this improved to 56% answering correctly.
- Forty-four percent said correctly in both pre-and posttest that an unbelted passenger is a danger. No improvement was noted.
- No improvement was noted regarding the purported danger of wearing safety belts. In both tests, 88% knew it was safer to wear belts.
- There was no improvement in the number who stated that they would not insult others if they put on their belts.
- In pretest, 75% said belts should be worn all the time; this increased to 94% acknowledging the need for constant use in the posttest.
- Eighty-one percent said they would make sure everyone was wearing belts (no change).
- All but two said the information they received was very useful, with 75% responding they felt it would be valuable to others.

Group 2, 14 students, 7 males, 7 females

Group 2 received the "On or Off the Field" Pamphlet only and discussed the skits.

#### Pretest/Posttest Results

- All knew in pretest and posttest that even good drivers need to wear safety belts.
- In pretest, 93% stated correctly that belts are necessary even on short trips around town; 85% answered correctly in posttest.
- All stated in pretest they should ask their friends to wear their belts; 92% answered correctly in posttest.
- Thirty-eight percent in pretest felt an unbelted passenger in a car is dangerous; this improved to 46% in posttest.
- A small improvement in knowledge on inertial belts was noted, from 64% to 69% answering correctly.
- Seventy-five percent equated belt use and health in pretest, whereas 88% made the connection in posttest.
- Seventy-one percent reported they would definitely wear their belt more often, with another seven percent stating they would probably wear it more often.
- Seventy-nine percent said belts should always be worn.
- All felt the material was either very useful (77%) or somewhat useful (23%).
- Half pledged to wear their belts all the time and four others said they possibly would change their use behavior.
- Twelve said that other like them would find the information valuable; one said it might be valuable; one abstained.

## Material Evaluation and Discussion Results

For the oral presentation (Group 1), seventy-nine percent said it was very effective and another seven percent somewhat effective. Eighty-eight percent felt it was geared to someone like them, with only 12% indicating it was geared toward someone else. It was not possible to determine from the written responses why they felt this way. All but one indicated the presentation was believable and that it would have an affect on others like them. Seventy-one percent felt a presentation of this type should be a part of their coursework.

Based on the students' comments, no revisions of the presentation were made, however, the students indicated that they would like to see a film of crash tests of belted vs. non-belted situations included as a part of the presentation.

The pamphlet, "On or Off the Field", was also evaluated with predrivers (Group 2). Based on the written and oral evaluations it was noted that students will probably only "maybe pick up" a pamphlet on their own; however, they indicated that they liked it and would read it should it be directly given to them as a part of another presentation. They felt that other students their age felt the same way -- they like print materials but are not motivated to pick them up on their own. Most liked the design, felt they learned something from it and found it very easy to read.

Students indicated they found it believable and geared to others like themselves and that the pamphlet would affect others like them. The message of belts as associated with health and safety was apparent to the students, and they also liked the stress on getting people to wear their belts if you really care about them.

The concept of using skits with predrivers was discussed and they felt that it was a good idea in conjunction with other activities, but that any skit should be presented by their peers, not by older students or adults.

The following suggestions by the predrivers were noted:

- Combine the use of pamphlets with an oral presentation which includes a film.
- Increase the exposure of students this age to materials on safety belts by contacting and presenting materials at schools, clubs, etc.; help them develop the habit of wearing safety belts before they start driving by increasing exposure to motivational concepts which encourage use.

- Include more information on inertial locking safety belts; students were fascinated with this concept and had many questions about it.

Based on comments received during discussion it was apparent that the students were generally receptive to the oral presentation and had no suggestions for change, other than the addition of the use of a film with crash test scenes. Modification of the headers for the pamphlet were made based on aggregate comments from predrivers, teens, and high risk drivers to soften the cover header, and increase emphasis on using belts as being a part of health and caring about others. These changes are reflected in the material presented in the first section of this report.

## Teenage Drivers and Passengers, Ages 16 to 19

Two focus sessions were held for teenage drivers and passengers in a high school driver education class. Although there may have been a higher initial knowledge level for these students because of their training in this class, it was felt that the mixture of types of students would be valuable in obtaining a variety of responses during evaluation.

Group 1, 12 students, 6 male, 6 female

This group received the Teen Talk oral presentation for evaluation.

### Pretest/Posttest Results

From pre- to posttest, few changes occurred in knowledge on the true-false segment of the questionnaires; however, for each question there were one to three more students who responded correctly after exposure to the presentation. The following results were noted:

- In pretest, 83% of all students responded incorrectly by stating that wearing belts was more dangerous than not wearing them; in posttest, all responded correctly.
- Half indicated in pretest that they almost never wear their safety belts, but after exposure, 58% said they would definitely wear their belt more often, and another 42% said they would probably wear it more often.
- Sixty-three percent said after exposure they would now make sure their friends were wearing their belts.
- Sixty-three percent found the information very useful, and 13% found it somewhat useful.

### Material Evaluation and Discussion Results

Based on their comments, no revisions of the oral presentation were necessary. The two to three minute Chrysler Corporation crash film comparing unbelted dummies to those with a lap belt and those with a lap and shoulder combination was well-received; however, the students had previously seen this film. Some students commented in discussion that they felt that films shown to teens should be "bloody" if they were to have any impact on use habits. This appears to be in direct contrast with other research in this area, and particularly conflicts with the types of films desired by the other target groups.

Group 2, 13 students, 4 males, 9 females

This group received the "On or Off the Field" Pamphlet and the "Let's Get It On" mailing insert.

#### Pretest/Posttest Results

- In the group with the question concerning whether it was more dangerous to wear belts during an accident. All students responded correctly in posttest, up from 93% correct in pretest. There was only a slight increase in knowledge that looseness of safety belts is to be expected because of the design of inertial systems. This is not unexpected as there was only small emphasis placed on this information as a part of the materials.
- Most (69%) reported they almost never wear their belts but in posttest, 54% said they would definitely wear it more often and 54% said they would probably wear it more often.
- Sixty-nine stated after exposure they would now make sure their friends were wearing their belts.
- All knew in pretest and posttest that they should always wear their belts.
- Sixty-two percent felt the information they received was very useful; 31% stated it was somewhat useful. Thirty-one percent said others like them would also find it useful.

#### Material Evaluation Results

Evaluation of the pamphlet "On or Off the Field" showed that students learned something from it and liked the cover, message, display, and readability. As with the preteens (and also with transitional drivers), it was suggested that actual photographs be used to avoid a "cartoon" appearance with drawings, and that it should be as colorful as possible. All stated the pamphlet was believable and only one person stated it would probably have no affect on others. The majority felt the pamphlet would either definitely or perhaps affect others.

An oral evaluation of the mailing insert "Let's Get It On" found it was generally liked, and students said they should be routinely distributed by departments of motor vehicles and insurance companies.

The teens suggested that skits be presented with student actors but not necessarily from their own school. They would also like to see lots of posters in schools and places of business typically frequented by teens.

Revisions were made in the pamphlet headers as described in the predriver section above. The pamphlet "On or Off the Field" was taken back to the school for a second evaluation following revisions. Pretest of these students revealed similar patterns as in the first session four weeks previously. Evaluation showed that the message was clearer after changes in the headers, and similarly, reaction to the visuals was proportionately more favorable.

## High Risk Transitional Drivers, Ages 19 to 24

Two groups of transitional drivers were used for focus group evaluation. These drivers were drawn from men attending drivers license testing sessions in Washington, D.C. and met the criteria for high risk transitional drivers. Results of these sessions are described below.

Group 1, 10 males

Group 1 received the talk show presentation from Ebon staff.

### Pretest/Posttest Results

The talkshow was presented to high-risk drivers in a mock-program format by Ebon staff. Shifts in knowledge level occurred from pre- to posttest as follows:

- All knew in pretest that wearing safety belts is much safer than not wearing them.
- All knew after exposure to materials that inertia locking belts are designed to be loose under normal conditions. (Compared to 80% correct in pretest)
- All answered correctly in posttest that safety belts are necessary during short trips and that good drivers need to wear belts too. (90% were correct in pretest)
- Half reported in pretest that they presently wear safety belts almost every time they are in the car.
- Half stated after exposure they will definitely now wear their belts more often with the other half stating they would probably wear it more often. One also indicated he won't change his present habits and it is assumed from his response that he presently wears his belt.
- Sixty percent said they will now make sure their friends are wearing their belts, and that they will now definitely wear their belts, with 30% saying they will possibly wear them.
- All know in posttest they should wear their belts every time they are in a car, compared to 90% in pretest.
- Seventy percent said the information was very useful, with 20% stating it was somewhat useful; one didn't respond.
- With one not responding, all said they thought others like them would find the information useful.

## Material Evaluation and Discussion

Evaluation of the talk show revealed several interesting points, some of which are in conflict with the findings of the previous study. These drivers said they almost never watch talk shows, however, they had several suggestions for use of talk shows and other media to reach drivers like themselves. Most said they listened more to radio and felt that radio announcements using crash noises, a voice-over asking if the driver was alright, the sound of a click of a belt, and the driver saying he was okay because he had his belt on, would make an impression. They also felt that television spots should be used on shows that involved heavy use of cars, such as "Hill Street Blues", "A Team", et cetera, would catch this type of audience.

The following evaluation results were noted:

- Sixty percent felt the talk show format and content was very effective with 30% saying it was somewhat effective. One responded he felt it was ineffective.
- Ninety percent felt it was geared to someone like him.
- All felt it was believable. This is interesting in view of the one person who felt it was not geared to someone like him and was not effective who also stated it was believable .
- All said it would have an affect on others like them.
- Comments on this type of presentation were that it is believable, down to earth, and understandable.

Based on the comments, no changes were made in the talk show. It is suggested, however, that the film used with this type of presentation be short, and contain the type of visual comparisons as found in the Chrysler crash test film used with the teenagers.

## Group 2, 8 males

This group was given the "On or Off the Field" Pamphlet for evaluation.

### Pretest/Posttest Results

Based on the results of comparison of pre- and posttest answers to true-false knowledge assessment, it is interesting to note that little change in knowledge occurred from exposure to the pamphlet. Fifty percent indicated in pretest they never wear their belts, and 50% indicated they presently wear them all the time. In posttest, 30% said they would definitely now wear them more often, with another 20% saying they would probably wear them more often.

- Seventy-five percent pledged after exposure to now make sure their friends are belted.
- Half felt in pretest they would not insult others if they put on their belt.
- All indicated belts should be worn when the roads are bad, but 78% indicated belts should be worn all the time.
- Of six responding, 67% said the information was very useful, with 33% saying it was somewhat useful.
- These six also answered that they thought other men would also find it valuable (with two not responding).

### Material Evaluation Results

- Only half would pick it up and read it or possibly do so, but all would read it if they got it in the mail or it were given to them.
- The message, display and cover were well received, and all but one indicated he learned something from it.
- The seven responding said it was believable, with 42% saying it definitely gets the message across, and 57% saying it somewhat gets it across.
- Forty-two percent said it might have an affect on others, and 29% said it would definitely have an affect.
- The myths-facts portion was especially liked, and comments were made concerning the increased knowledge and/or awareness of the occurrence of accidents close to home and at low speed.

Some revisions of the pamphlet interior content were made in an attempt to moderate what was perceived by a few men as an attempt at use of too many cliches or "cuteness" in order to broaden the general appeal of the material. These changes were also incorporated and were tested in the second-round session with teenagers, as previously described.

The mailing insert, "Let's Get It On" was discussed and the men indicated they felt more of these types of inserts should be used. Frequent exposure to motivational messages was seen as being important in changing behavior by these men.

APPENDIX A

Agencies and Organizations Contacted for Existing Material Review

AT & T  
Nat'l Law Enforcement Council  
Nat'l Health Care Assn.  
Nat'l Assn. of State Bd. of Ed.  
Nat'l Assn. of Pro. Educators  
Safety Management Institute  
The Family Institute  
family Practice News  
U. S. Brewers' Assn.  
National Medical Assn.  
U.S. Conf. of City Health Officers  
Children's Legal Rights  
Children's Hospital  
Auto Owner Action Council  
AAA  
Planned Parenthood  
National Safety Council  
Alabama  
Ohio  
North Carolina  
Nat'l Women's Hwy Safety Leaders  
Nat'l Assn. of Social Workers  
Nat'l Women's Health Network  
National Consumers League  
Amer. College of OB & GYN  
Scott Geller, VA Polytech  
Girl Scouts of America  
Lamaze Childbirth Preparation  
Nat'l Assn. of Elem School Princ.  
American Bar Association  
Nat'l Health Lawyers  
National 4-H Council  
Amer. Alliance for Health  
IT & T  
Nat'l Assn. of Public TV  
EXXON  
Standard Oil of Indiana  
Honda  
Childbirth Education Assn.  
American Motors Co.  
Nat'l Health Planning Assoc.  
Nat'l Federation of Teachers  
Nat'l Assn. of Gov't Employees  
Chrysler Corporation  
Auto Safety Foundation  
Providence Hospital  
United Way  
National Planning Assoc.  
U.S. Consumers Assn.  
Children's Education Assn  
Family Protection Report  
Motor Vehicles Manufacturers  
League of Women Voters  
Mobil Oil  
General Motors  
Arizona  
District of Columbia  
California  
Nat'l Council of Health Centers  
Nat'l Assn of Towns & Townships  
Nat'l Assn of Indep. Insurors  
Nat'l Self-Health Assn.  
American Medical Assn.  
Montgomery County KISS  
Boy Scouts of America  
Camp Fire  
Nat'l Assn of Comm. Health Ctrs  
Nat'l Assn. of Indep. Schools  
Amer. Council of Life Insur.  
Nat'l Center for Alcohol Educ.  
Nat'l Assn. Second. School Prin  
Free Congress Foundation  
Shell Oil  
Ford Motor Company  
SOHIO  
Toyota  
International Health Coalition  
Childbirth Training

APPENDIX B

TYPES OF MESSAGE AND DELIVERY SYSTEMS FOR PARENTS OF  
CHILDREN UNDER AGE 5

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<u>MESSAGE TYPE</u>	<u>DELIVERY SYSTEM</u>
Preventive Health	Medical Political Figures, Groups Internal/External Organizations Media Peers
Other Guy at Fault	Same as Above
Don't Make Child an Orphan	Same as above
How Inertial belts Work	Medical Internal/External Organizations Media
Use of Safety Seat	Medical Internal/External Organizations Media

IMPORTANT ASPECTS OF MESSAGES AND DELIVERY

Need information on purchasing, the correct use of child safety seats, and when to transfer the child to safety belts.  
Need information on inertial belts  
Need special messages on existing laws and their requirements.  
"Don't make your child an orphan" idea very potent  
Preventive Health Important  
Use because you are a good driver and a good parent  
Health and Welfare is major delivery group  
Most will buckle the child but not themselves.  
Networks: Pre-natal classes and parent groups to provide information and awareness.  
Need information from obstetricians, pediatricians, and other health care providers

TYPES OF MESSAGES AND DELIVERY TYPES FOR  
PRE-DRIVERS (12 to 16)

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MESSAGE TYPES

DELIVERY

Preventive Health

Medical  
Educators  
Political  
Police\*/Fire  
Internal/External Organizations  
Peers

How Inertial Belts Work

Internal Organizations  
Media  
Educators

IMPORTANT ASPECTS OF MESSAGES AND DELIVERY

"Buckle up" associated with adult control; parental influence strong, but will wear belts if told  
Conflicting perceptions over what is seen on TV  
Peers important; want to follow the examples of older kids  
Social position very important  
Important as a "gentle persuader" of their parents

\*Police, in general, are a negative delivery system

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TYPES OF MESSAGES AND DELIVERY SYSTEMS FOR  
TEENAGE DRIVERS/PASSENGERS (16-19)

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MESSAGE

DELIVERY

Preventive Health  
"Why Use" Messages

Medical  
Educators  
Internal/External Organizations  
Media  
Peers

Other Guy

Same as Above

Belt Function

Media

IMPORTANT ASPECTS OF MESSAGES AND DELIVERY

Strong social and peer influence  
Glamorize Safety Belt Use  
Electronic Media Weak  
Institutional networks and links strong  
Need to be seen as adults  
Denials regarding driving abilities, accidents, statistics  
"Safety" Concept negative; suggests they are not good drivers  
Don't believe belts work  
Most have had driver's education  
Can be reached through educators and internal organizations

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TYPES OF MESSAGES AND DELIVERY SYSTEMS FOR  
HIGH RISK DRIVERS (19-24)

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<u>MESSAGE</u>	<u>DELIVERY</u>
Preventive Health	Medical External Organization Media Peers
Other Guy	Same as above
How Inertial Belts Work	Media

IMPORTANT ASPECTS OF MESSAGES AND DELIVERY

Prevention very positive, "safety" negative in terms of their driving ability.  
Strong denial Mechanism: "Won't Happen to Me"  
"Other Guy" message strong for use here  
"Belts and Booze" very strong link  
TV major source of information -- Talk shows popular  
Preventive Health is an acceptable message  
Passive prevention sees belts as insurance  
Active prevention seen in same light as jogging, a good diet, etc.  
No programs identified for use with this group

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APPENDIX C

PRETEST FOR PARENTS OF YOUNG CHILDREN

PLEASE ANSWER THE FOLLOWING QUESTIONS.

1. MARK TRUE OR FALSE FOR EACH OF THE FOLLOWING:

- ] A baby held in an adult's arms in a car will be safe during most collisions.
- ] Only federally approved child safety seats should be used to transport children in cars
- ] The safest place in a car for children up to age four is in an approved safety seat.
- ] Auto accidents are a greater threat to children than diseases.
- ] Good drivers don't need to wear safety belts because they hardly ever get in accidents.
- ] It is okay to use a feeder type of seat in the car if you put the safety belt around it.
- ] It doesn't matter where you put the safety belt around a child safety seat, just so long as it holds it.
- ] Children are safest sitting in the front seat of a car.
- ] If your safety belt seems loose when you put it on it means the belt isn't working properly.

2. When do you usually wear safety belts? CHECK ONE

- ] Only on certain occasions, such as when the roads are bad or when I'm on a long trip
- ] Almost every time I'm in the car
- ] I almost never wear my safety belts

3. What is your sex?

- ] Male
- ] Female

4. Do you now have any children living at home?

- ] Yes
- ] No

5. How many years of schooling do you have? (NOTE: Put the number of years of school, and count high school graduation as 12, college bachelors degree as 16, and masters degree as 18)

\_\_\_\_\_ years

6. Do you have a driver's license?

[ ] Yes (if yes, answer question 6a, below)

[ ] No (if no, you have completed this section)

- 6a. How many years have you driven?

\_\_\_\_\_ years

## PART II

1. If you see a friend not wearing a safety belt, do you ask him/her to put it on?

[ ] Yes

[ ] No

2. If you are riding in a friend's car, do you feel you would insult others if you put on your safety belt when they did not?

[ ] Yes

[ ] No

3. When should you wear your safety belt? CHECK ALL THAT APPLY

[ ] When the roads are bad

[ ] On long trips

[ ] On short trips, such as shopping

[ ] In heavy traffic

[ ] Every time I'm in the car

[ ] Never, they don't do any good

4. When you are in a car, do you make sure everyone is wearing his/her safety belt?

[ ] Yes

[ ] No

5. What do you think is the most important reason people wear safety belts?

6a. Is there any reason not to wear safety belts every time a person is in the car?

[ ] Yes (if yes, answer question 6b,below)

[ ] No (if no, you have completed this section)

6b. What are these reasons?

APPENDIX D

PRETEST FOR PREDRIVERS, TEENAGERS, AND TRANSITIONAL DRIVERS

PLEASE ANSWER THE FOLLOWING QUESTIONS:

1. CHECK WHETHER EACH OF THE FOLLOWING ARE TRUE OR FALSE:

- ] Wearing safety belts is not necessary when taking short trips around town at low speeds.
- ] You don't need to wear safety belts if you are a good driver because good drivers seldom get into accidents.
- ] You should ask your friends to wear their safety belts when they ride with you.
- ] An unbelted passenger in a car presents a potential danger to everyone else in the car in a crash.
- ] Wearing safety belts usually is more dangerous than not wearing them in an accident.
- ] If your safety belt seems loose when you put it on it means the belt isn't working properly.
- ] People who take care of their health such as by eating right, not smoking, jogging, etc., are more likely to wear their safety belts.

2. When do you usually wear safety belts? CHECK ONE

- ] Only on certain occasions, such as when the roads are bad or when I'm on a long trip.
- ] Almost every time I'm in the car.
- ] I almost never wear my safety belt

3. What is your sex?

- ] Male
- ] Female

4. What is your age?

\_\_\_\_\_

5. How many years of school have you completed? (Note: if you have graduated from high school, count it as 12 years; college bachelors degree count as 16 years)

\_\_\_\_\_ years

6. Do you have a drivers license?

[ ] Yes (if yes, answer part 6a)

[ ] No (Skip to question 7, and answer only if you are age 19 or over)

6a. How long have you held your drivers license?

\_\_\_\_\_

ANSWER THE FOLLOWING ONLY IF YOU ARE MALE AND AGE 19 OR OVER

7. Do you have a full time job?

[ ] Yes

[ ] No

8. Are you in school full time?

[ ] Yes

[ ] No

9. What is your marital status?

\_\_\_\_\_ Married

\_\_\_\_\_ Not married

## PART II

1. If you see a friend not wearing a safety belt, do you ask him/her to put it on?

[ ] Yes

[ ] No

2. If you are riding in a friend's car, do you feel you would insult others if you put on your safety belt when they did not?

[ ] Yes

[ ] No

3. When should you wear your safety belt? CHECK ALL THAT APPLY

- ] When the roads are bad
- ] On long trips
- ] On short trips, such as shopping
- ] In heavy traffic
- ] Every time I'm in the car
- ] Never, they don't do any good

4. When you are in a car, do you make sure everyone is wearing his/her safety belt?

- ] Yes
- ] No

5. What do you think is the most important reason people wear safety belts?

6a. Is there any reason not to wear safety belts every time a person is in the car?

- ] Yes (if yes, answer question 6b,below)
- ] No (if no, you have completed this section)

6b. What are these reasons?

APPENDIX E

POSTTEST FOR PARENTS OF YOUNG CHILDREN

PLEASE ANSWER THE FOLLOWING QUESTIONS.

1. CHECK TRUE OR FALSE FOR EACH OF THE FOLLOWING:

- ] A baby held in an adult's arms in a car will be safe during most collisions.
- ] Only federally approved child safety seats should be used to transport children in cars
- ] The safest place in a car for children up to age four is in an approved safety seat.
- ] Auto accidents are a greater threat to children than diseases.
- ] Good drivers don't need to wear safety belts because they hardly ever get in accidents.
- ] It is okay to use a feeder type of seat in the car if you put the safety belt around it.
- ] It doesn't matter where you put the safety belt around a child safety seat, just so long as it holds it.
- ] Children are safest sitting in the front seat of a car.
- ] If your safety belt seems loose when you put it on it means the belt isn't working properly.

2. When do you usually wear safety belts? CHECK ONE

- ] All the time
- ] Only when I feel less secure, such as when the roads are bad or when I'm on a long trip
- ] Almost every time I'm in the car
- ] I almost never wear my safety belts

3. What is your sex?

- ] Male
- ] Female

4. Do you now have any children living at home?

- ] Yes
- ] No

5. Based on what you have learned from the material or presentation you just received, what is the likelihood you will wear your safety belt more often?

Definitely will wear my belt more often

Probably will wear it more often

Won't change my present habits

What is the likelihood you will now use child safety seats for your children under age 4?

Definitely will use child safety seats every time

Will probably use child safety seats

Won't use them

6. How many years of schooling do you have? (NOTE: Put the number of years of school, and count high school graduation as 12, college bachelors degree as 16, and masters degree as 18)

\_\_\_\_\_ years

7. Do you have a driver's license?

Yes (if yes, answer question 7a, below)

No (if no, you have completed this section)

7a. How many years have you driven?

\_\_\_\_\_ years

## PART II

1. If you see a friend not wearing a safety belt, do you make sure they put it on?

Yes

No

2. If you are riding in a friend's car, do you now feel you would insult others if you put on your safety belt when they did not?

Yes

No

3. When should you wear your safety belt? CHECK ALL THAT APPLY

- ] When the roads are bad
- ] On long trips
- ] On short trips, such as shopping
- ] In heavy traffic
- ] Every time I'm in the car
- ] Never, they don't do any good

4. When you are in a car, will you now make sure everyone is wearing his/her safety belt?

- ] Yes
- ] No

5. What do you think is the most important reason people wear safety belts?

6a. Is there any reason not to wear safety belts every time a person is in the car?

- ] Yes (if yes, answer question 6b,below)
- ] No (if no, you have completed this section)

6b. What are these reasons?

7. Do you feel that the information you received was useful?

- ] Yes, very useful
- ] Somewhat useful
- ] Not useful

8. Do you expect that you will wear your safety belts more frequently as a result of what you have learned?

- ] Yes, definitely
- ] Possibly
- ] No, I won't change my habits

9. Do you think that someone else like you would find this information valuable?

- ] Yes
- ] No

APPENDIX F

POSTTEST FOR PREDRIVERS, TEENAGERS, AND TRANSITIONAL DRIVERS

PLEASE ANSWER THE FOLLOWING QUESTIONS:

1. CHECK WHETHER EACH OF THE FOLLOWING ARE TRUE OR FALSE:

- ] Wearing safety belts is not necessary when taking short trips around town at low speeds.
- ] You don't need to wear safety belts if you are a good driver because good drivers seldom get into accidents.
- ] You should ask your friends to wear their safety belts when they ride with you.
- ] An unbelted passenger in a car presents a potential danger to everyone else in the car in a crash.
- ] Wearing safety belts usually is more dangerous than not wearing them in an accident.
- ] If your safety belt seems loose when you put it on it means the belt isn't working properly.
- ] People who take care of their health such as by eating right, not smoking, jogging, etc., are more likely to wear their safety belts.

2. When do you usually wear safety belts? CHECK ONE

- ] Only on certain occasions, such as when the roads are bad or when I'm on a long trip.
- ] Almost every time I'm in the car.
- ] I almost never wear my safety belt

3. What is your sex?

- ] Male
- ] Female

4. What is your age?

\_\_\_\_\_

5. Based on what you have learned from the material or presentation you have just received, what is the likelihood you will wear your safety belt more often?

Definitely will wear my belt more often

Probably will wear it more often

Won't change my present habits

6. How many years of school have you completed? (Note: if you have graduated from high school, count it as 12 years; college bachelors degree count as 16 years)

\_\_\_\_\_ years

7. Do you have a drivers license?

Yes (if yes, answer part 7a)

No (Skip to question 8, and answer only if you are age 19 or over)

7a. How long have you held your drivers license?

\_\_\_\_\_

ANSWER THE FOLLOWING ONLY IF YOU ARE MALE AND AGE 19 OR OVER

8. Do you have a full time job?

Yes

No

9. Are you in school full time?

Yes

No

10 What is your marital status?

\_\_\_\_\_ Married

\_\_\_\_\_ Not married

## PART II

1. If you see a friend not wearing a safety belt, will you now make sure they to put it on?

Yes

No

2. If you are riding in a friend's car, do you now feel you would insult others if you put on your safety belt when they did not?

[ ] Yes

[ ] No

3. When should you wear your safety belt? CHECK ALL THAT APPLY

[ ] When the roads are bad

[ ] On long trips

[ ] On short trips, such as shopping

[ ] In heavy traffic

[ ] Every time I'm in the car

[ ] Never, they don't do any good

4. When you are in a car, will you now make sure everyone is wearing his/her safety belt?

[ ] Yes

[ ] No

5. What do you think is the most important reason people wear safety belts?

6a. Is there any reason not to wear safety belts every time a person is in the car?

[ ] Yes (if yes, answer question 6b, below)

[ ] No (if no, you have completed this section)

6b. What are these reasons?

7. Do you feel that the information you received was useful?

[ ] Yes, very useful

[ ] Somewhat useful

[ ] Not useful

8. Do you expect that you will wear your safety belts more frequently as a result of what you have learned?

Yes, definitely

Possibly

No, I won't change my habits

9. Do you think that someone else like you would find this information valuable?

Yes

No

APPENDIX G

PERCENT DEMONSTRATING KNOWLEDGE OF EACH CONCEPT

CONCEPT	PREDRIVERS				TEENAGERS				HIGH RISK TRANSITIONAL			
	Oral		Print		Oral		Print		Oral		Print	
	Pretest/Posttest:	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	
Safety belts are necessary for short, low speed trips	63	93	75	85	83	92	100	93	90	100	75	75
Good drivers need to wear belts	88	100	88	100	100	92	100	100	90	100	75	88
Should ask riders to wear belts	94	100	100	92	100	83	93	100	100	100	100	100
Unbelted passengers are dangerous	44	38	44	46	50	58	79	86	70	80	88	100
Belts should be worn every time	75	100	94	100	89	100	100	100	90	100	88	88
Wearing safety belts is safer than not	88	75	88	69	83	100	92	100	100	100	100	88
Loose belts doesn't mean they aren't working	44	64	56	69	42	67	69	79	80	100	38	63
Belt use is associated with health care	55	75	81	88	33	50	36	46	50	40	50	57
Would not insult others if only one wearing belt	88	79	81	71	100	77	86	86	80	80	75	63
Makes sure others are wearing belts (pretest)	94	14	NA	NA	25	NA	36	NA	50	NA	38	NA
Will make sure others are wearing belts (posttest)	NA	NA	100	33	NA	77	NA	60	NA	60	NA	88
Wears belt now (pretest)												
Most of the time	69	43	NA	NA	33	NA	27	NA	45	NA	36	NA
Under some conditions	13	19	NA	NA	0	NA	13	NA	11	NA	27	NA
Never	19	38	NA	NA	67	NA	60	NA	33	NA	36	NA

PERCENT DEMONSTRATING KNOWLEDGE OF EACH CONCEPT

<u>CONCEPT</u>	<u>PREDRIVERS</u>				<u>TEENAGERS</u>				<u>HIGH RISK TRANSITION</u>				
	<u>Oral</u>		<u>Print</u>		<u>Oral</u>		<u>Print</u>		<u>Oral</u>		<u>Print</u>		
	<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>	
Will wear belts more often(posttest)													
<u>Definitely</u>	NA	47	NA	72	NA	54	NA	38	NA	45	NA	2	
<u>Probably</u>	NA	47	NA	7	NA	39	NA	46	NA	45	NA	8	
<u>Won't change present habits</u>	NA	6	NA	21	NA	7	NA	15	NA	10	NA		
<u>Information received was useful</u>	NA	100	NA	100	NA	100	NA	92	NA	100	NA	10	
<u>Others would find information valuable</u>	NA	100	NA	100	NA	100	NA	92	NA	100	NA	10	

PERCENT DEMONSTRATING KNOWLEDGE OF EACH CONCEPT

<u>CONCEPT</u>	PARENTS					
	<u>Pretest/Posttest:</u>	<u>Oral</u>		<u>Print</u>		
		<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>	
Child is not safe in an adult's arms	100	100	100	100	100	
Use only federally approved seats	100	100	100	88	88	
Children to age 4 are safest in approved seats	100	100	100	88	88	
Auto accidents are a greater threat than disease	91	100	100	100	100	
Good drivers need to wear belts	100	100	100	100	100	
Feeder seats should not be used in a car	100	100	100	100	100	
Placement of the belt around child safety seats matters	100	100	100	100	100	
The back seat is the safest place for a child	90	100	100	100	100	
Loose belts doesn't mean they aren't working	80	90	25	25	25	
Belts should be worn every time	100	100	88	100	100	
Wouldn't insult others if only one wearing belt	100	100	100	100	100	
Makes sure others wear belts (pretest)	20	NA	38	NA	NA	
Will make sure others wear belts (posttest)	NA	40	NA	50	50	

PERCENT DEMONSTRATING KNOWLEDGE OF EACH CONCEPT

PARENTS

<u>CONCEPT</u>	<u>Pretest/Posttest:</u>		<u>Oral</u>		<u>Print</u>	
	<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>
Wears belts now (pretest)						
Most of the time	20	NA	0	NA	0	NA
Sometimes	80	NA	86	NA	86	NA
Never	0	NA	14	NA	14	NA
Will wear belt more often (posttest)						
Definitely	33	NA	71	NA	71	NA
Probably	42	NA	0	NA	0	NA
Won't change present habits	25	NA	29	NA	29	NA
<sup>89</sup> Information received was useful	NA	100	NA	100	NA	100
Others will find information useful	NA	100	NA	100	NA	100
Will now use child safety seats						
Definitely every time	NA	88	NA	100	NA	100
Probably	NA	12	NA	0	NA	0
Won't Use	NA	0	NA	0	NA	0

APPENDIX H

EVALUATION FOR ORAL PRESENTATIONS

Group # \_\_\_\_\_

1. Which one of the following describes your feelings toward the presentation?  
CHECK ONE.

- Very Effective
- Somewhat Effective
- Somewhat Ineffective
- Very Ineffective

2. Do you feel the presentation was (CHECK ONE):

- geared to someone like you
- geared to someone else

3a. What was the single most important thing you learned from this presentation?

3b. What else did you learn?

4. Was the presentation believable?

- Yes
- No

5. How did this presentation affect you?

6. Do you think this presentation would have any effect on other people like you?
- Yes, definitely would have an effect
  - Might have an effect
  - No, would not have an effect
- 7a. Was there anything you didn't understand?
- Yes (If yes, go to question 6a)
  - No (If no, go to question 7)
8. What did you like best about the content of the presentation?
9. What did you like least about it?
10. Do you think a presentation of this type should be a regular part of your course?
- Yes
  - No
11. Do you now have a child safety seat?
- Yes (If yes, go to question 12, below)
  - No (If no, go to part 11a, below)
- 11a. Do you now plan to purchase a safety seat?
- Yes
  - No
- 11b. If you had not planned to purchase a child safety seat prior to this presentation, what is the likelihood you now will purchase one?
- Definitely will purchase a seat
  - Probably will purchase a seat
  - Have no plans to purchase a seat
12. What is your sex?
- Male
  - Female

13. Do you have children living at home?

Yes

No

14. How many years of schooling have you completed? (NOTE: Put the number of years of school, and note you should count high school graduation as 12 years, college bachelor's degree as 16 years, and masters degree as 18 years).

\_\_\_\_\_ years

15a. Do you have a driver's license?

Yes (if yes, go to question 14b)

No (if no, you have completed this questionnaire)

15b. How many years have you driven? \_\_\_\_\_ years

APPENDIX I

For the pamphlet \_\_\_\_\_, answer the following questions:

1. If you saw this pamphlet somewhere, would you (CHECK ONE):

Definitely pick it up and read it

Maybe pick it up

Ignore it

2. From the following list, check the things you like best about the pamphlet:  
CHECK ALL THAT APPLY.

Cover

Easy to read

Message (what it says)

Pictures/Photos

Interesting display

Learned something from it

3a. Is the pamphlet believable?

Yes (if yes, skip to question 4)

No (if no, answer question 3b)

3b. If you said no, why isn't it believable?

4a. Is there anything in it you don't understand?

Yes (if yes, answer question 4b)

No (if no, skip to question 5)

4b. If there was something you didn't understand, what was it?

5. What was the single most important thing you learned from it?
6. Do you feel this pamphlet would have any effect on other people like you?
- Yes, definitely would have an effect
  - Might have an effect
  - Would have no effect
7. What message do you feel the pamphlet is trying to get across?
8. Do you feel the pamphlet gets across the message you described in #7?
- Definitely gets the message across
  - Somewhat gets it across
  - Doesn't really get the message across
9. What is your sex?
- Male
  - Female
10. How many years of schooling have you completed? (NOTE: Put the number of years of school, and note you should count high school graduation as 12 years, college bachelor's degree as 16 years, and masters degree as 18 years).
- \_\_\_\_\_ years
- 11a. Do you have a driver's license?
- Yes (if yes, go to question 11b)
  - No (If no, you have completed this section)
- 11b. How many years have you driven?
- \_\_\_\_\_ years

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